

## SEQUENCE LISTING

<110> Descamps, Valerie

Klarszinsky, Olivier

Barbeyron, Tristan

Cloarec, Bernard

Fritig, Bernard

Joubert, Jean-Marie

Plesse, Bertrand

Yvin, Jean-Claude

<120> Endofucanases and Method Using Same for Preparing Fuco-  
oligosaccharides from Fucanes, Bacterium Producing Endofucanases and Uses  
of Fuco-oligosaccharides for Plant Protection

<130> 32976-256844

<140> US 09/787,714

<141> 2001-03-21

<150> PCT/FR99/02243

<151> 1999-09-21

<160> 6

<170> PatentIn version 3.0

<210> 1

<211> 1474

<212> DNA

<213> Unknown

<220>

<223> Gram-negative rod bacterium

<220>

<221> misc\_feature

<222> (12)..(12)

<223> "n" = a or g or c or t/u, unknown or other

<220>

<221> misc\_feature

<222> (1124)..(1124)

<223> "n" = a or g or c or t/u, unknown or other

<400> 1

```

agagtttgat cntggctcag gatgaacgct agcggcaggc ctaacacatg caagtcgagg      60
ggtagagaga gcttgctttt cttgagaccg gcgcacgggt gcgtaacgcg tatacaatct      120
gcctcttact gcgggatagc ccagagaaat ttggattaat atcgcatagc ataacgaccc      180
cgcatgggat gttattaaag gttacggtaa gagatgagta tgcgttctat tagctagatg      240
gagtggtaac ggcacaccat ggcaacgata gataggggcc ctgagagggg gatccccac      300
actggtactg agacacggac cagactccta cgaggaggcag cagtgaggaa tattggacaa      360
tggaggcaac tctgatccag ccatgccgcg tgcaggaaga cggccctatg ggttgtaaac      420
tgcttttata cggaagaaa caccgctacg tgtagccttt gacggtaccg taagaataag      480
gatcggctaa ctccgtgcca gcagccgcg taatacggag gatccaagcg ttatccggaa      540
tcattgggtt taaaggtcc gtagtggatg attaagtcag aggtgaaatc ctgccgctca      600
acggtagaat tgcctttgat actggttatc ttgaatcaat gtgaagtggg tagaatatgt      660
agtgtagcgg tgaaatgcat agatattaca tagaatacca attgcgaagg cagatcacta      720
acattgtatt gacactgatg gacgaaagcg tggggagcga acaggattag ataccctggt      780
agtccacgcc gtaaacgatg gatactagct gttcggatth atctgagtgg ctaagcgaaa      840
gtgataagta tccacactgg ggagtacgtt cgcaagaatg aaactcaaag gaattgacgg      900
gggccgcac aagcgggtga gcatgtggtt taattcgatg atacgcgagg aaccttacca      960

```

```

gggcttaaatt gtagattgca ttaggtggag acacttattt cttcggacca tctacaaggt 1020
gctgcatggg tgtcgtcagc tcgtgccgtg aggtgtcagg ttaagtccta taacgagcgc 1080
aacccccgtt gttagttgcc agcgagtcac gtcgggaact ctancaagac tgccagtgca 1140
aactgtgagg aaggtgggga tgacgtcaaa tcatcacggc ccttacgtcc tgggctacac 1200
acgtgctaca atggtaggga cagagagcag ccactgggcg accaggagcg aatctataaa 1260
ccctatcaca gttcggatcg gagtctgcaa ctcgactccg tgaagctgga atcgctagta 1320
atcgcatatc agccatgatg cggagaatac gttcccgggc cttgtacaca ccgcccgtca 1380
agccatggaa gctgggagtg cctgaagtcc gtcaccgcaa ggagcggcct agggtaaaat 1440
cggtaactag ggctaagtcg taacaagggtg tccg 1474

```

<210> 2

<211> 15

<212> PRT

<213> Unknown

<220>

<223> Gram-negative rod bacterium

<400> 2

```

Gln Thr Ala Asn Thr Thr Tyr Gly Ile Asn Thr Val Ala Ser Met
1           5           10          15

```

<210> 3

<211> 18

<212> PRT

<213> Unknown

<220>

<223> Gram-negative rod bacterium

<400> 3

```

Thr Ser Gly Pro Asp Trp Leu Thr Ile Gln Gln Thr Asp Ala Asn Ser
1           5           10          15

```

Gly Lys

<210> 4  
 <211> 17  
 <212> PRT  
 <213> Unknown

<220>

<223> Gram-negative rod bacterium

<400> 4

Ile	Thr	Val	Asp	His	Val	Ala	Gly	Phe	Thr	Asn	Leu	Trp	Asn	Gly	Ala
1				5					10					15	

Pro

<210> 5  
 <211> 203  
 <212> DNA  
 <213> Unknown

<220>

<223> Gram-negative rod bacterium

<400> 5

attacggttg	atcatgttgc	aggttttact	aatttgggta	atggagcacc	tgtttggtct	60
tcacctatac	ttaatcttac	cgatggaaaa	ggatcattcg	cctataatta	tactttgcaa	120
ttaggaaccg	attattatga	ttttgaaggt	gatgcactta	ctattactaa	aacatcagga	180
cctgattggc	tcaccattca	aca				203

<210> 6  
 <211> 67  
 <212> PRT  
 <213> Unknown

&lt;220&gt;

&lt;223&gt; Gram-negative rod bacterium

&lt;400&gt; 6

Ile Thr Val Asp His Val Ala Gly Phe Thr Asn Leu Gly Asn Gly Ala  
1 5 10 15

Pro Val Trp Ser Ser Pro Ile Leu Asn Leu Thr Asp Gly Lys Gly Ser  
20 25 30

Phe Ala Tyr Asn Tyr Thr Leu Gln Leu Gly Thr Asp Tyr Tyr Asp Phe  
35 40 45

Glu Gly Asp Ala Leu Thr Ile Thr Lys Thr Ser Gly Pro Asp Trp Leu  
50 55 60

Thr Ile Gln  
65